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OFFICE OF THE SECRETARY

May 28, 1993

Office of the Secretary Federal Communication Commission Washington, D.C. 20554

ATTN: Donna R. Searcy, Secretary

RE: Reply Comments

Proposed Rule Making Concerning Maritime Communications

PR Docket No. 92-257

Dear Ms. Searcy,

Enclosed herein are an original and nine copies of comments pertaining to the proposed rule making concerning maritime communications. We would like each commissioner to receive a personal copy.

WJG Maritel and Gulf Coast Maritel (dba "Marine Telephone Company") are affiliated corporations with common ownership and management. Both corporations are licensees for numerous VHF marine public coast stations.

Correspondence regarding this submission can be directed to our counsel, Mr. John Ballenger, Thomas, Ballenger, Vogleman and Turner, 124 South Royal Street, Alexandria, VA 22314.

Most sincerely,

Charles J. Drobny J

Sr. Vice President

No. of Copies rec'd_ List A B C D E

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FEDERAL COMMUNICATIONS COMMISSION OFFICE OF THE SECRETARY

WJG Maritel and Gulf Coast Maritel are related companies doing business under the common name Marine Telephone Company (MTC). MTC holds over sixty VHF public coast station licenses and operates control centers in Memphis, TN, Gulfport, MS and Hollywood, FL. The company operates stations on the East Coast from North Carolina through the Florida Keys, on the Gulf Coast from the Florida pan handle to the Texas border and on the Inland Waterway from the mouth of the Mississippi River to Chicago, IL. Marine Telephone Company history and experience go back over 50 years with one of the first VHF public coast stations in Memphis, TN. Marine Telephone Company supports these efforts to make changes to the rules governing marine radio service.

Marine Telephone Company's primary focus is public correspondence on VHF. As one the largest such operators in the nation, MTC has observed significant shifts in the market in recent years. While entirely adequate to address the market conditions and available technologies of the past, the framework of the rules and the perspective of the proposed rule making notice require some change to properly address the future.

In the past the spectrum definition and the markets served were virtually the same. Marine VHF served the marine market and conversely, the marine market relied *only* on VHF for services. Today such distinctions are murky. The marine market is served by other non marine designated spectrum. Cellular serves increasingly larger recreational segments of the marine market. It is no longer possible to address the safety and service needs of marine by focusing only on the marine designated spectrum. Also, the migration

WJG Maritel. Gulf Coast Maritel

of marine users to other types of services has seriously affected the ability of marine spectrum service providers to adequately meet traditional marine safety and service needs.

For VHF public coast stations the shift towards other spectrum service providers has been devastating. The economic impact of lost business has resulted in the collapse of several operators. Public coast station VHF licenses have been turned back to the FCC in alarming numbers. These operators have been unable to provide service with reasonable returns and are simply going out of the marine radio telephone business. In addition to those stations already shut down, there are several systems presently available for sale. However, there have been and continue to be no buyers. The result is the loss of service to many areas. This has threatened safety and pushed even more marine users toward other services. This is a vicious cycle whose result will be the demise of public coast station VHF service throughout the nation.

Such loss of service can and must be turned around. New rules can allow public coast stations to operate as a cost competitive alternative to cellular. The continued and long term presence of public coast stations is in the public interest. A viable VHF network promotes marine safety. It will also insure the effective use of the marine frequencies.

- A. Inquiry: Telecommunications Requirements
- 12) Over the next 10-15 years, recreational boating will continue to increase.
- a) There will be more boaters per capita and there will be more boaters using marine radios. The decreasing cost and increasing quality of marine radios will continue. There will be more radios in use on more boats.
- b) There will be increasing turbulence in the pool of recreational marine communicators. On the average, each recreational boat changes hands every two to three years. The nation will always have a considerable number of neophytes with boats and marine radios. They will be on the water and will need and want to communicate. Their expectations will be for inexpensive radios, automatic dialing and immediate connections. *They will also have more safety related needs.* As boats become more powerful and more automated, new boaters will be more likely to get into situations they cannot handle. There will be more calls for assistance and more emergencies.
- c) Boaters have and will continue to gravitate toward cellular. Cellular offers direct dialing and seemingly instantaneous connections. Rates are kept low by the enormous land customer base over which fixed costs are spread. However, this is a formula for disaster. As the cellular channels become increasingly congested (primarily from land use), service providers will further compartmentalize their systems. This will reduce the range over water and result in increasing difficulty to access the system by marine users. For safety related calls for assistance and genuine emergencies (potential loss of life, limb or vessel), cellular is entirely inadequate. While there are some localized efforts to establish a cellular safety network no effective network currently exists. The revenue vs

cost mechanisms do not exist and cannot be justified to establish effective safety cellular networks. Boaters will rely on cellular only to find it wholly inadequate to meet their needs for safety and assistance.

13) Inquiry: Technology:

The ability to transmit tones over public correspondence voice channels will enable VHF to increase efficiency and ease channel loading. Such tones, whether DTMF, facsimile handshakes or protocol signals should be facilitated within the rules. The tendency to restrict future service to only one type signaling or a specific protocol will stifle future development. The argument that all radios must be common to all protocols in all possible operating areas is not practical. The overwhelming number of boaters, be they commercial or recreational, operate in local areas and regions. These local areas and regions comprise segmentable markets which are presently served by networks of public coast stations. Each market has divergent needs for access to the public switched network. The service providers must be allowed to serve these local and definable regional markets in the way best suited to their particular market. By placing fewer restrictions and allowing for a variety of signaling methods and protocols, the rules would allow for more development and implementation of unique solutions to unique problems.

14) Trunking

a. The rules should promote the multiple use of channels. Trunking may not be the ideal solution as it will require considerable replacement of both onboard and shore equipment. However, a freer use of adjacent channels where a single operator is licensed for multiple contiguous sites will allow for more efficient use of spectrum. If an operator is licensed for multiple contiguous stations that operator should be allowed to manage assigned channels within their particular licensed area. This will enable operators to automate and take full advantage of technological advancements.

- b. The present rules do not allow for multiple use of channels within a given area because there are not enough channels authorized for local coast station use. Public coast stations are authorized only one channel in most places. The use of a single frequency is restricted to specific sites even when a single operator is licensed for multiple contiguous stations on several channels. Coast stations should be allowed to manage their authorized channels within their geographic areas by reallocating channel assignments within their areas without any requirement to refile for new authorizations in specific areas. Also, the rules should allow for overlap of frequencies in areas where there are no navigable waterways. At present the rules will not allow for logical reassignment of frequencies if coverage might overlap adjacent channels. This is true even if the same operator is licensed for the adjacent channel and controls it from the same control center. In the past when public coast stations were individually owned, operated and controlled, this made sense. Now and in the future when companies own and will continue to own and operate multiple contiguous sites, such rules are counterproductive.
- c) Standards for channel sharing or multiple channel use need not be set for all marine radios. Few vessels transit wide areas of the nation's waterways. The overwhelming majority stay in a specific area or region. Since these areas and regions

are served by public coast station operators, there is no need to require standards. The market will determine the standard.

15) Digital Selective Calling (DSC)

The stated advantages of DSC deal with emergency broadcasts and telephone calls. DSC must have adequate shore facilities for its advantages to be realized. It will require new RF equipment for channel 70 as well as new control equipment to handle emergencies and telephone calls. This will place a tremendous cost burden on both the USCG and the public coast stations.

At present both the public coast stations and the USCG are charged with maintaining a safety network for channel 16. The rules require public coast stations to maintain a safety watch on channel 16 for which they are not compensated. This selective requirement does not exist for the other marine communications service providers, cellular and AMTS. The rules place a burden on public coast stations for the privilege of obtaining exclusive licenses to provide radio telephone service. There is no such burden on either cellular or AMTS despite the fact that they serve exactly the same customers. This inequity has contributed to the demise of public coast station service in many areas. Faced with the cost of maintaining channel 16 coverage in areas where public correspondence traffic has shifted to cellular and AMTS, operators have had no choice but to turn in their licenses and cease operation. This has occurred particularly on the Inland Waterway. In 1992 licensees have abandoned service in Pittsburgh and St Louis.

The reasons cited in both have been the tremendous drop in revenue attributed to shifts to cellular and AMTS along with the increased cost of maintaining channel 16 safety watch service.

The trend worldwide is toward the privatization of the safety watch requirement. Other nations have contracted to private enterprise to maintain the safety watch. The coast guard authority in those nations has modified their internal safety watch networks. This has accomplished two goals. First it has insured that the systems are present at a more reasonable cost to the government. Second, it has provided public coast stations with a revenue stream to insure the continued existence of marine radio telephone systems in areas where the economics would have resulted in the termination of such services. In Australia, OTC maintains a nationwide direct dial marine radio telephone system using non DSC protocols. (OTC is the Australian and Overseas Telecommunications Corporation. It is the dominant telephone and telecommunications company in Australia, similar to what AT&T's Bell system was before the breakup.) OTC contracts with the Australian government to operate the safety and watch system on the distress channels. In Sweden the same situation exists where there also exists a coastal network of cellular coverage. In a 1993 meeting of the RTCM, a consultant representing Swedish Telecom Radio (Sweden's national VHF public coast station service provider) stated categorically that without the contract for emergency channel monitoring, the public correspondence network would simply not exist in Sweden.

The new rules should provide for safety and distress monitoring by public coast stations on a compensated contractual basis. This will provide for the system at less cost than it could be provided by the USCG. It will also provide public coast stations with not just incentive but also the financial means to maintain service. In the absence of such a policy, the rules should allow at minimum for the removal of the channel 16 watch requirement for public coast stations. This will remove a tremendous cost burden and will also enable operators to utilize other technologies to streamline their services and improve margins to an acceptable level.

17) There remain several questions as to whether or not DSC can support public correspondence over the public switch network. While DSC has been installed on many boats and the distress functions have been proved effective, no such tests have been documented for DSC as a means to provide radio telephone service.

There are two important areas which must be addressed when designing and implementing an automated service for radio telephone access to the public switch network. This first is the mechanisms and protocols to complete the call. The second is the mechanisms and protocols to identify the caller and bill for the call. There are unresolved questions about both areas.

In many regions, public correspondence is provided by single service providers who operate multiple contiguous sites from the same control center. DSC provides for

signaling on channel 70 followed by the automatic switching of the caller's radio to an available working correspondence channel and the direct dialing of the call. This scenario works well for isolated stations where the channel 70 broadcast will be received by the sole site. However, isolated stations are the rare exception and not the universal rule. It is possible that multiple adjacent sites will respond to the channel 70 signal and the call will be completed on a less desirable channel or it will not be completed because of adjacent site interference.

While direct dial calls over VHF is not very difficult, the administration of such calls is. Public coast stations must be able to bill for calls placed over their networks. This requires a system of identification, verification, call logging and billing. Each request for a phone call must provide an identification and a means to bill the call. Existing DSC protocols do not allow for the transmission of billing information or for the time required to verify such billing. No system, DSC or otherwise will be used by public coast stations if calls cannot be effectively billed. At present other protocols and signaling methods show better promise than does DSC.

18) Digital Selective Calling

- a) Requirements for DSC should be to minimum standards for safety and should allow for add on units.
- b) The increased price will be incremental, and as with all other electronic equipment, will be less as more units are sold. Radios now are less expensive than ever

coast stations have suffered from tremendous erosion of traditional customer bases. The resulting loss of revenue has caused several operators to discontinue service to several local markets. Public coast station operators simply cannot continue to bear the same costs of maintaining service while cellular and AMTS take away customers. In order to maintain service, public coast stations must be given every opportunity to utilize marine spectrum to serve alternative users.

21) We support flexible non-restrictive rules which will encourage new technology development and existing technology application to non traditional markets. We don't however support rules changes which might allow for the selective invasion of marine frequencies by non marine service providers. Marine communications require more rigorous standards than land based communications because of safety. Marine operators must have more robust equipment and abide by more restrictive rules because lives are always at stake at sea and in open water. Coast station operators have an obligation to support the safety aspects of marine communications without receiving any direct compensation. Their systems and organizations are geared to protect as well as to serve. Non marine organizations should not be allowed to utilize marine allocated spectrum. They bear none of the responsibility or the extra costs of their marine competitors.

Additional services should be offered and different uses made of unused marine

frequencies, but only by marine operators. As alternate uses of frequencies become feasible and implemented, control to insure proper availability to marine users will be of paramount importance. If the alternate users are marine operators also, the interests of marine will be properly represented. This will make regulation and enforcement less onerous and more effective.

23) Any possible expansion of service to additional customers will make it more possible for struggling public coast station operators to stay in business. If the right to expand service into new areas is not provided on an exclusive basis, public coast station operators will not invest in such new services and markets.

25) Intra service sharing of VHF public correspondence by marine to marine calls is not feasible. VHF public correspondence channels are half duplex. That is the transmit frequency differs from the receive frequency on mobile units. These frequencies (TX and RX) are opposite for the coast stations. It is not possible for one vessel to talk with another vessel on a public correspondence channel without a shore station to relay and retransmit both sides of the mobile conversation. This is a common misconception, that two boats can talk to each other on a public correspondence channel. They can do so if a shore station is turned on and the telephone cross talk circuit is not blocked. However, this would not be the case if such channels were authorized for use by marine to marine communicators.

- 26) Automatic Interconnection with PSTN.
- a) Automatic interconnection with the PSTN must be authorized for all public coast stations if they are to maintain sufficient customers to remain in business. This can be accomplished through the transmission of tones utilizing a variety of protocols. While such transmissions are authorized and in wide use in AMTS, they should be similarly authorized for VHF public correspondence channels. This does not have to be accomplished just with DSC as other protocols can provide this service at less cost and in a more efficient manner.
- b) Automatic interconnection with the PSTN on public correspondence channels does not necessarily mean the elimination of operator requirements. Both could coexist. This would result in a more efficient use of spectrum. The question however of operator requirements lies in which channel must be monitored by the operator.
- c) DSC has not proven its ability to serve as an effective gateway to the PSTN. It has demonstrated ability to direct dial phone numbers; but it has not been shown able to provide effective billing information. Completing a call is only part of the requirement. Billing the call and collecting for services rendered is quite another task. Just because a radio can auto identify does not mean a valid phone call billing record can be created. DSC presently lacks this capability. There are other protocols and signaling methods which show greater promise. The rules should allow operators their choice of methods.
- d) Requiring operator assistance on any protocol, DSC or otherwise on VHF public correspondence frequencies, places an additional burden on the operator. This is alright if other service providers to marine, specifically cellular and AMTS are saddled with

similar requirements. Otherwise it adds cost to the operator which by law must be absorbed in its rates. This will produce higher rates and chase customers away from VHF. It is the same vicious cycle that VHF public coast station operators now face.

30-35 AMTS Channels and Non Dominant Carrier Status

All consideration of AMTS must deal exclusively with the inland waterway (to include the GIWW) as that is the only area where such service is presently licensed for use. (Application for AMTS on the West Coast has been filed but no system is in operation.) The most significant segment of the market for inland marine telephone traffic is the commercial towing industry. Towing vessels require contiguous service on the major navigable waterways for business communications with their offices and for personal communications with their homes. Such service is only provided on the major inland rivers by AMTS and public coast stations. There is only one AMTS carrier (Watercom) and one or two public correspondence service providers in each area. At present there is predatory pricing on and unfair competition for the inland market.

Of the two competing systems (AMTS and VHF) one virtually gives away the mobile or onboard units. It has been Watercom's practice to provide units previously priced and unsold at (\$5,000 plus installation) to boats for \$1 per month. The costs of such give aways is not recovered in the airtime and service rates. As a result numerous users have fled VHF for the artificially low rates offered by AMTS.

VHF is required to maintain operator safety watches on both channel 16 and each correspondence channel. AMTS has no such requirement. VHF is bearing the cost of marine safety yet not protected from the predatory loss of its customers to competing services.

The maritime mobile service for the inland waterways is in no way characterized by a substantial number of highly competitive entities. AMTS has not recovered reasonable costs in establishing rates. It is therefore engaging in unfair trade practices. AMTS does not provide safety services for marine. Yet Watercom now serves the bulk of the commercial marine vessels on the Inland Waterway. The existing rules have allowed for an uneven playing field for inland marine.

In the coastal markets, the situation is somewhat similar. For these markets, recreational boaters comprise the major available market for marine radio telephone access to the public switch network. In these markets, particularly Florida and the Gulf Coast, cellular engages in unfair trade practices. They virtually give away units for free or a nominal charge in return for service contracts. They provide services without any safety requirements to burden their operations. The shift of many marine radio telephone customers to cellular has been dramatic. When recreational boaters need to make calls they turn to mobile, transportable and portable cellular phones. When they get into trouble, they turn to their marine VHF radios and expect to get instant response to their safety calls. The public coast stations continue to bear higher costs to maintain a service

level not reached by cellular, while their customer base is continuously eroded by cellular's mega marketing and advertising campaigns to attract more marine customers. Cellular advertises and promotes itself at all marine shows and in most dealerships as a marine communications alternative. Unfortunately when it comes to safety, cellular is a terrible choice.

36) Dominant and Non Dominant Carriers

The market power test should be applied in determining a carrier's status as dominant or non dominant. The test should be applied to the market by type vessel served rather than to the specific type of service offered. We have seen that boats, especially in the domestic market, can select the type service they utilize to communicate over the public switch network. They can use AMTS (Watercom), cellular or VHF. The test of dominance should be applied to carriers within each market served, not within each type service offered. Tests should focus on the ability to enter the market, raise prices, curtail overall output or engage in predatory or discriminatory pricing. Since AMTS and cellular have already allocated all available spectrum to the existing carriers, entrance to the that service is precluded. Entrance to the VHF service is still possible as not all frequencies have been allocated in all areas. As there is only one carrier in AMTS, that carrier has the ability to raise prices, curtail overall output and engage in predatory pricing. Clearly then the test would allow for the reclassification of VHF as non dominant but would call for the continued classification of AMTS as a dominant carrier.

37-38 Private Land Mobile Use of Marine Frequencies

In principle we are opposed to any non marine use of marine frequencies. However, we recognize the merit of the argument that in remote areas where there is no marine activity, such frequencies go unused and could be allocated to non marine use. In as much as marine communications integrity is a vital part of marine safety, those marine communications should be carefully protected.

It is one thing to regulate land stations to specific locations, and power settings. That can be more easily regulated and controlled than can mobile units. If mobile units are authorized for such remote service on marine frequencies, what would stop them (mobile units) from entering marine service areas and causing disruptions of service? The answer is little or nothing. While it is quite possible to separate land stations with adequate distances and powers, it is totally impossible to control unauthorized use by mobile units in non authorized areas. One might argue that anyone could mount a marine radio in a vehicle and cause the same type disruption. However this is an unauthorized use in any service area.

39-41) Inter Service Sharing

While the congestion on marine frequencies has been documented in some areas, the need for inter service sharing has not been established. Inter service sharing will not ease the burden in crowded marine markets. Why risk the integrity of the marine system to provide for additional frequency use in remote areas?

If such sharing is to be, the rules for spacing must be at least as rigorous as the existing rules for channel separation of marine frequencies. Ideally these rules should call for even more rigorous standards and time allowed to pass so that experience with such rules be gained. Only then will there be certainty that marine service is not degraded by the presence of such sharing. That seems to be the case with the existing waivers granted under the present rules. There should be no change to the existing rules with respect to channel sharing.